

AMENDMENTS TO THE DRAWINGS

Attachment:

Replacement Sheet(s) Figs. 2, 9 and 11

REMARKS

Claims 1, 5-7 and 9-14 are all the claims pending in the application. Claims 1, 6 and 14 are amended.

Drawings

The Examiner objects to the drawings under 37 C.F.R. § 1.83(a), because they do not show every feature of the invention specified in the claims. Specifically, the Examiner notes that the “penetrable transmitting mirror radiating extreme ultraviolet rays to exit to a carpet or floor”, as expressed in claim 1, is not present in the figures. Support for this limitation appears at page 6, lines 3-9, where it teaches that “a transmitting mirror made of transparent material is provided under the extreme ultraviolet ray transmitting tube (32) so that the extreme ultraviolet ray can irradiate on the floor or to outside and inside of the carpet.” The mirror can be seen in original Figs. 9 and 11, where it appears as element 44.

Since there is clear support, Applicants have modified Figs. 2, 9 and 11 to include such structure and provide it with a reference character.

Specification

The Examiner objects to the specification for failing to provide a proper antecedent basis in the specification for the newly claimed feature that the cleaning head can freely “swivel”, as recited in claim 6. This rejection is traversed for at least the following reasons.

The original language in the claim specified that the cleaning head can be “freely adjusted to any angle”. Applicant amended the specification and claim in response to the Examiner’s objection to the language “can movably connected.” Applicant believes that the word “swivel” would be understood by one skilled in the art to mean movable connection or, “freely adjusted to any angle.”

However, in light of the Examiner’s objection, Applicant has reverted to the original claim language.

Claim Rejections - 35 U.S.C. § 112

Claims 1, 5-7 and 9-14 are rejected under 35 U.S.C. § 112, first paragraph as failing to comply with the written description requirement. This rejection is traversed for at least the following reasons.

With regard to claim 1, the Examiner observes it is unclear as to where it is disclosed that the handle is “extendable”. At page 4 of the specification, the machine is described as having a sling shot (10) and a locking fastener (11) provided on a trailing end of the machine body (1), where a long pipe (12) is also provided so that one end of the handle (13) can easily slide in and be locked by the fastener (11). Clearly, this supports the disclosure that the handle is “extendable”. Applicants respectfully submit that the term is supported, but are prepared to accept alternative language that may be proposed by the Examiner.

The Examiner also objects to the recitation in claim 1 that the transmitting tube has a “transmitting mirror” that is used as a cover for the tube. The Examiner observes that at page 5, a transmitting mirror is disclosed to be under the tube and a separate movable cover, having a different reference numeral than the mirror, is taught. The Examiner is correct in his observation. An appropriate change to the claim has been made.

Claims 1, 5-7 and 9-14 are rejected under 35 U.S.C. § 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements. This rejection is traversed for at least the following reasons.

The Examiner observes that claim 1 recites a list of structural elements but fails to provide any structural connection between them. Specifically, the Examiner notes in the Response to Argument at page 8 of the Office Action that the problem with claim 1 is not remedied by the amendment to claim 14. The Examiner suggests that claim 1 should be amended to provide a structural relationship between the various elements as opposed to providing a body with all the elements therein.

Claim 1 has been amended to recite the elements in a structural manner.

Claim 14 is rejected under 35 U.S.C. § 112, second paragraph as being indefinite. This rejection is traversed for the following reasons.

The Examiner objects to the language in claim 14 that requires a “strong” suction. The word “strong” has been deleted.

Claim Rejections - 35 U.S.C. § 103

Claims 1, 5-6, 9-10 and 14 are rejected under 35 U.S.C. §103(a) as being unpatentable over Thomas et al (6,108,864) in view of Hung (5,233,723). This rejection is traversed for at least the following reasons.

Claim 1

The Examiner observes that Thomas discloses a similar dust collecting machine but fails to disclose an extreme ultraviolet ray transmitting tube. The Examiner identifies the elements of claim 1 that are found in Thomas et al.

The Examiner looks to Hung for a disclosure of a dust collecting machine having an ultraviolet ray transmitting tube and a transparent transmitting mirror, as illustrated in Fig. 3, ref. nos. 4 and 31.

Hung teaches the use of a single tube having a round configuration and mounted so that it radiates both into the path of flow and onto the floor.

By contrast, the present invention has two separate tubes, one mounted adjacent the garbage box in the streamlined body for radiation through a first transparent mirror and the second mounted in the moveable head for radiation of the floor through a second transparent mirror. This difference is significant in that the device provides more flexibility and mobility with respect to the use of the UV radiation to provide disinfecting and cleanliness to a living space, especially in areas under furniture and in remote locations where access is difficult and germs and undesirable matter can lay undisturbed. Claim 1 now specifies this difference.

Claims 5, 6, 9, 10 and 14

With respect to claims 5, 6, 9, 10 and 14, these claims would be patentable due to their dependence from allowable claim 1.

Claim 7 is rejected under 35 U.S.C. §103(a) as being unpatentable over Thomas et al (6,108,864) in view of Hung (5,233,723) as applied to claim 1 and further in view of Oh et al (6,968,595). This rejection is traversed for at least the following reasons.

The Examiner observes that Thomas et al in view of Hung fails to disclose an ultraviolet ray transmitting tube in the body. The Examiner notes that Oh et al discloses a dust collecting machine with an ultraviolet ray transmitting tube in the body, with reference to Fig. 5, No. 500. In view of the combination of prior art, this rejection may be difficult to overcome.

The patentability of this claim would rely upon its dependence from claim 1. Applicants further submit that the provision of two UV tubes with accompanying mirrors in each of two locations would not be obvious. Applicants structure permits cleaning and disinfecting both the accumulated dust and garbage, and the floor or rug. Providing the second tube in the moveable head gives greater flexibility and provides a wider scope of coverage, not found in the prior art. This is a significant advance over the state of the art.

Claim 11 is rejected under 35 U.S.C. §103(a) as being unpatentable over Thomas et al (6,108,864) in view of Hung (5,233,723) as applied to claim 1 and further in view of McDowell (4,766,638). This rejection is traversed for at least the following reasons.

The patentability of this claim would rely upon its dependence from claim 1.

Claims 12-13 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Thomas et al (6,108,864) in view of Hung (5,233,723) as applied to claim 1 and further in view of Oh et al (6,968,595) and Cuddeback (2,632,912). This rejection is traversed for at least the following reasons.

The patentability of this claim would rely upon its dependence from claim 1.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the

Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

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